Section One: Design Dispenser Transfer System

Task 1 Determine Dispenser Application, Operating Requirements and Proper Location
Task 2 Identify Required Dispenser Tank Valves and Fittings
Task 3 Identify Dispenser Electrical System Requirements
Task 4 Apply Propane Pump Operating Characteristics to Select the Dispenser Pump
Task 5 Identify Dispenser Shutdown System and Fire Extinguisher Requirements
Task 6 Select Dispenser Transfer Hose(s), Hose End Valves, Hose Safety Devices and Adapters
Task 7 Identify Auxiliary Equipment for a Propane Dispenser
Task 8 Select Meter and Dispensing Equipment for a Service Station Motor Fuel Dispenser

Section Two: Install Dispenser Transfer System

Task 1 Install a Propane Dispenser
Task 2 Identify Requirements for a Dispenser Using Supply Tanks (s) with Aggregate Water Capacity Greater than 4000 Gallons
Task 3 Verify that Transfer System is Void of Nitrogen or other Inert Gases
Task 4 Introduce LP-Gas Vapor Slowly into the Entire Transfer System and Container, Pressurizing to Normal Operating Pressure as Measured in the Vapor Space of the Supply Cargo Tank
Task 5 Determine if the Transfer System and Container are Gas Tight by Conducting Leak Test
Task 6 Introduce LP-Gas Liquid into the Transfer System

NOTICE: The Skills Evaluator must be the candidate’s supervisor or another qualified person who has completed CETP "Design and Install Dispenser Transfer Systems" or is familiar with the subject matter.

CETP Certification requires that the employee seeking certification cannot act as his/her own evaluator.
Instructions for Use:

The Performance Based Skill Assessment Evaluation is designed to standardize conditions under which the candidate demonstrates performance of tasks to meet the requirements for NPGA CETP Certification.

The Skills Assessment should be supplemented with company policies and procedures related to each task being evaluated as needed.

1. The candidate has 12 months from the date of successfully passing the CETP Certification exam to train and successfully complete the tasks within the evaluation.

2. The Affidavits and Final Checklist are found on the last pages of the skills packet.
   - Affidavits must be signed by both the candidate and the skill evaluator
   - The Final Checklist must be fully completed within 12 months of passing the exam (Candidates have time to practice skills they are not yet familiar with)
   - Make a copy for the training records for future audits when the skills assessment is completed
   - Send the last pages of skills assessment (Affidavit page and Final Checklist) to the testing center within 12 months of passing the exam

3. All requirements and prerequisites must be met before certification will be granted.

**Designing and Install Dispenser Transfer Systems:**

- Passing exam score on 5.1 “Design and Install Dispenser Transfer Systems”
- Completed and Signed 5.1 “Design and Install Dispenser Transfer Systems” Skills Assessment returned to the testing center within 12 months of passing the exam
- 1.0 Basic Principles and Practices certification completed within 12 months of passing the exam

Users of this material should consult the law of their individual jurisdictions for codes, standards and legal requirements applicable to them. This material is not intended to be an exhaustive treatment of the subject, and should not be interpreted as precluding other procedures that would enhance safe LP-gas operations. This training material merely suggests methods the user may find useful in implementing applicable codes, standards, and legal requirements. This publication is not intended nor should it be construed to (1) set forth procedures which are the general custom or practice in the propane industry; (2) to establish the legal standards of care owed by propane distributors to their customers; or (3) to prevent the reader from using different methods to implement applicable codes, standards or legal requirements. This material was designed to be used as a resource only to assist expert and experienced supervisors and managers in training personnel in their organizations and does not replace federal, state, local, or company safety rules. The user of this material is solely responsible for the method of implementation. The Propane Education and Research Council, the National Propane Gas Association and Industrial Training Services, Inc. assume no liability for reliance on the contents of this training material.

Issuance of this material is not intended to nor should it be construed as an undertaking to perform services on behalf of any party either for their protection or for the protection of third parties.
Instructions for Candidate:

Practice the operations as many times as needed to become confident and proficient with the documents or equipment necessary to complete each task. Your evaluator will check and observe your performance, using the steps to complete each hands-on operation and/or company procedures.

The candidate must adhere to all safety precautions. If a safety precaution is violated, then the demonstration shall be stopped and the skills evaluator must instruct the candidate on the proper safety procedures that apply before allowing the candidate to continue.

After completing the skills evaluation, the candidate must fill out the Employee Information section and sign the Affidavit.

Required information includes the candidate’s last four digits of the SSN to assist the testing center in locating the correct records.

Instructions to the Skills Evaluator:

The candidate must adhere to all safety precautions. If a safety precaution is violated, then the demonstration shall be stopped and the skills evaluator must instruct the candidate on the proper safety procedures that apply before allowing the candidate to continue.

- Review the tasks within the Skills Evaluation with the candidate.
- Review all of the instructions, answering any questions and explaining how the skills assessment will be used.
- Demonstrate and/or talk the candidate through each of the steps required to perform each task.
- Allow the candidate time to ask questions and/or study the steps.
- Observe the candidate performing the required steps, providing corrections as needed
- Allow the candidate to practice until he/she is confident. Remember: the candidate has 12 months from the date of passing the exam to complete and return the skills assessment
- Evaluate the candidate when ready.
- After completing the final checklist, complete the Skills Evaluator information and sign the affidavit.
- Ensure that the Affidavit and final Checklist are copied for the Employee Training Records and then sent to the testing center.

Each task is divided into one or more operations upon which the candidate’s performance is evaluated. All tasks must be completed unless the “Not Applicable” option is both available for the task and applicable to the candidate.

☐ Satisfactory - When all the operations within a task are successfully performed by the candidate according the criteria provided, the evaluator will check off the box marked “Satisfactory.”

*☐ Not Applicable – Certain tasks have the “Not Applicable” option available. The Skills Evaluator must ensure the circumstances described under the options are applicable to either the candidate or marketer’s present situation.
## Section One: Design Dispenser Transfer System

**PROPAINE DISPENSER INSTALLATION PLAN page 1**

<table>
<thead>
<tr>
<th>Customer:</th>
<th>Plan Date: / /</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation:</td>
<td>Prepared by:</td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td>County:</td>
</tr>
<tr>
<td>Authority Having Jurisdiction:</td>
<td>Permit Required?</td>
</tr>
<tr>
<td></td>
<td>Fire Safety An. Req'd?</td>
</tr>
<tr>
<td>Installation Type:</td>
<td>☐ RV Dealer or Park ☐ Industrial Lift Truck ☐ Service Station ☐ Other:</td>
</tr>
<tr>
<td>If &quot;Other,&quot; describe:</td>
<td></td>
</tr>
</tbody>
</table>

### Containers Serviced:

(Check all that apply.)

- [ ] Cylinders
- [ ] Portable Vapor Service
- [ ] Portable Liquid Service
- [ ] Motor Fuel
- [ ] ASME Tanks
- [ ] Motor Fuel
- [ ] Mobile Fuel

### Site Electrical Power

- [ ] Single Phase, 240V
- [ ] Three Phase, 240V 480V
- [ ] 120V only

### Sketch of Site:

(Show distances to important buildings, property lines that can be built upon, location of electrical power supply, location of remote shut down station(s), vehicle traffic protection required, & other important features.)

---

NPGA 5.1 Design and Install Dispenser Transfer Systems Skills Assessment

Return to: INDUSTRIAL TRAINING SERVICES, INC.
120 Max Hurt Dr. • Murray, KY 42071 • TELEPHONE: 270/753-2150 • Page 5

11-2012
**Section One: Design Dispenser Transfer System**

**PROPane DISPenser INSTALLATION PLAN** page 2

<table>
<thead>
<tr>
<th>Estimated Weekly Propane Usage</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>□ Industrial Lift Truck 8 gallons x ___ Lift Trucks x ___ Shifts per day x ___ days = ____ gallons per week</td>
<td></td>
</tr>
<tr>
<td>□ Service Station 15 gallons x ___ vehicles x ___ days = ____ gallons per week</td>
<td></td>
</tr>
<tr>
<td>□ RV Dealer or Park ___ portable cylinder gal + ___ motor fuel cyl gal + ___ motor/mobile tank gal x ___ days = ____ gallons per week</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASME Dispenser Tank Size Needed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Delivery: Use weekly usage number. If 400 or less, □ 500 gallons W.C. 401 to 800 gallons, □ 1000 gallons W.C. 801 to 1000 gallons, □ 1200 gallons W.C. Over 1000 gallons, □ ________ gallons W.C.</td>
<td></td>
</tr>
<tr>
<td>Twice a Month: Double weekly usage number. If 400 or less, □ 500 gallons W.C. 401 to 800 gallons, □ 1000 gallons W.C. 801 to 1000 gallons, □ 1200 gallons W.C. Over 1000 gallons, □ ________ gallons W.C.</td>
<td></td>
</tr>
<tr>
<td>Monthly Delivery: Multiply weekly usage number x 4. If 400 or less, □ 500 gallons W.C. 401 to 800 gallons, □ 1000 gallons W.C. 801 to 1000 gallons, □ 1200 gallons W.C. Over 1000 gallons, □ ________ gallons W.C.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASME Dispenser Tank Type Needed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Single Horizontal □ ___ Horizontals □ Single Vertical</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pump Required</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Regenerative Turbine ____ gpm, Model:</td>
<td></td>
</tr>
<tr>
<td>□ Side Channel ____ gpm, Model:</td>
<td></td>
</tr>
<tr>
<td>□ Sliding Vane ____ gpm, Model:</td>
<td></td>
</tr>
<tr>
<td>□ Gear Pump ____ gpm, Model:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Equipment Required</th>
<th>□ Cylinder Scales Other:</th>
<th></th>
</tr>
</thead>
</table>
Section One: Design Dispenser Transfer System

Task 1: Determine Dispenser Application, Operating Requirements and Proper Location

Performance Guide: At a potential dispenser operator site or at the company’s offices and using company forms or the forms provided on the previous two pages, the person being evaluated:

1. Determined the appropriate dispenser application, operating requirements, proper equipment and type, and proper location and separation distances from dispenser installation.
2. Completed a site plan sketch on the installation plan.
3. Completed the Dispenser tank and equipment requirement information on the installation plan.

☐ Satisfactory

Task 2: Identify Required Dispenser Tank Valves and Fittings

Performance Guide: Using the completed installation plan, the person being evaluated:

1. Correctly identified the following according to NFPA 58 and company policies and procedures:
   - Required supply tank valves for dispenser installation.
   - Required supply tank fittings for dispenser installation.

☐ Satisfactory

Task 3: Identify Dispenser Electrical System Requirements

Performance Guide: At a potential dispenser operator site or at the company’s offices, the person being evaluated:

1. Identified dispenser electrical system requirements on the installation plan.
2. Identified the boundaries of the Divisions 1 and 2 classified areas for electrical components, applying National Electrical Code and NFPA 58 definitions.
3. Contacted a licensed electrician to obtain an installation estimate and bill of materials for the electrical portion of the dispenser installation.

☐ Satisfactory

Task 4: Apply Propane Pump Operating Characteristics to Select the Dispenser Pump

Performance Guide: Consulting a propane equipment supplier or propane pump manufacturer technical services representative, the person being evaluated:

1. Applied propane pump operating characteristics to select the appropriate dispenser pump required for installation.
2. Identified the piping requirements for the pump.
3. Identified the valve requirements for the pump and dispenser supply tank.

☐ Satisfactory
Section One: Design Dispenser Transfer System

Task 5: Identify Dispenser Shutdown System & Fire Extinguisher Requirements

Performance Guide: At a potential dispenser operator site or at the company’s offices and consulting the NFPA 58, the person being evaluated:

1. Explained the correct requirements for the following:
   - Emergency shutdown systems
   - Fire Extinguisher

2. Entered the correct locations on the installation plan sketch for the following:
   - Remote Emergency shutdown station(s) and associated signs

☐ Satisfactory

Task 6: Select Dispenser Transfer Hose(s), Hose End Valves, and Hose Safety Devices and Adapters

Performance Guide: At a potential dispenser operator site or at the company’s offices and consulting the NFPA 58, the person being evaluated:

1. Selected the following using NFPA 58 requirements:
   - Proper dispenser transfer hose(s)
   - Hose end valves and adapters
   - Hose safety devices including proper anchor and attachment means

☐ Satisfactory

Task 7: Identify Auxiliary Equipment for a Propane Dispenser

Performance Guide: At a potential dispenser operator site, training facility or company shop and consulting NFPA 58, the person being evaluated:

1. Selected suitable scales for filling DOT cylinders by weight for the dispenser application.
2. Identified appropriate auxiliary equipment for a propane dispenser by consulting NFPA 58.

☐ Satisfactory

Task 8: Select Meter and Dispensing Equipment for a Service Station Motor Fuel Dispenser

Performance Guide: At a potential dispenser operator site, training facility or company shop, the person being evaluated:

1. Identified appropriate propane meter(s) and motor fuel dispenser or dispensing cabinet for the service station installation.
2. Identified the NFPA 58 requirements for minimum separation distance requirements with regard to:
   - Other motor fuel dispensers
   - Other motor fuel storage containers
   - Emergency shutdown controls

3. Located the motor fuel dispenser on the installation plan sketch and marked the separation distances to important structures and features as set out in NFPA 58, in addition to indicating proper positioning to protect the dispenser from vehicle damage.

☐ Satisfactory  ☐ Not Applicable*

*Not Applicable means that the company employing the person being evaluated for certification does not install, nor service propane motor fuel service station dispensers.
Section Two: Install Dispenser Transfer System

Task 1: *Install a Propane Dispenser*

**Performance Guide:** Working with a supervisor or other qualified evaluator, the person being evaluated:

1. Properly verified all required permits, O&M plans and Fire Protection or Fire Safety Analysis documents were in order
2. Prepared the installation site according to company policies and procedures and obtained required inspection approvals.
3. Installed the following according to company policies and procedures:
   - Supply tank(s)
   - Pump
   - Meter(s)
   - Valves and connected piping
4. Completed an installed piping leak test as required by NFPA 58 and authority having jurisdiction (AHJ), obtaining any required inspection approvals at the appropriate stages of inspection
5. Installed the auxiliary equipment required for dispenser installation.
6. After the installation was completed, trained dispenser-operating personnel using appropriate training materials (such as the PERC Dispensing Propane Safely program) and demonstrated how to operate the dispenser to fill propane containers.
7. *If applicable,* delivered and explained the O&M plan to the dispenser operating personnel supervisor.

☐ Satisfactory

Task 2: *Identify Requirements for a Dispenser Using Supply Tank(s) with Aggregate Water Capacity Greater than 4000 Gallons*

**Performance Guide:** Working with a supervisor or other qualified evaluator and NFPA 58, the person being evaluated:

1. Correctly identified the documents that must be prepared and filed with the AHJ for dispenser installations using supply tank(s) with aggregate water capacity greater than 4000 water gallons.
2. Identified any product transfer and emergency shutdown equipment required for the dispenser installation.
3. Identified the minimum separation distance requirements set out in NFPA 58 for a dispenser using a single supply tank with water capacity greater than 4000 gallons.

☐ Satisfactory

Task 3: *Verify the Transfer System is Void of Nitrogen or Other Inert Gases*

**Performance Guide:** Working with a supervisor and wearing company-prescribed PPE and following company policies and procedures, the person being evaluated:

1. Verified the transfer system is void of nitrogen or other inert gases.
2. If inert gas was detected, followed company policies and procedures to safely purge any inert gas present.

☐ Satisfactory
Section Two: Install Dispenser Transfer System

Task 4: **Introduce LP-Gas Vapor Slowly into the Entire Transfer System and Container, Pressurizing to Normal Operating Pressure as Measured in the Vapor Space of the Supply Cargo Tank**

Performance Guide: Working with a supervisor and wearing company-prescribed PPE and following company policies and procedures, the person being evaluated:

1. Performed a preliminary inspection to determine that all dispenser valves and fittings were properly installed, closed and/or tightened as appropriate.
2. Connected the vapor equalizing transfer hose of the cargo tank to the vapor equalizing hose of the dispenser supply tank.
3. **SLOWLY** introduced LP-Gas into the entire transfer system container, checking for leakage at the connections, and slowly continuing to transfer the vapor **only after first ensuring there is no leakage**.
4. Closed and disconnected the cargo tank transfer hose when the pressure in the dispenser tank equalized to that of the pressure in the cargo tank.
5. Properly stowed the transfer hose.

☐ Satisfactory

Task 5: **Determine if the Transfer System and Container are Gas Tight by Conducting a Leak Test**

Performance Guide: Working with a supervisor and wearing company-prescribed PPE and following company policies and procedures, the person being evaluated:

1. Verified the dispenser tank and all components of the dispenser transfer system were at normal operating pressure.
2. Correctly applied leak detection method to each tank and transfer system component and connection.
3. Observed the detection method applied and correctly determined if any leak was present.

*If Applicable*

4. If any leak has been detected, used the appropriate company policies and procedures to repair the leak.
5. Re-pressurized the system with propane vapor and verified that the leak was eliminated and the system was gas tight by repeating steps 1-3 (above) until the system is verified as gas tight.

☐ Satisfactory

Task 6: **Introduce LP-Gas Liquid into the Transfer System**

Performance Guide: Working with a supervisor and wearing company-prescribed PPE and following company policies and procedures, the person being evaluated:

1. Properly transferred liquid propane from the cargo tank vehicle into the dispenser supply tank.
2. Stopped the transfer operation when the desired liquid level or maximum permitted liquid level was reached.
3. Disconnected the cargo tank vehicle liquid transfer hose and properly stowed transfer equipment.
4. Completed necessary documentation of propane delivery transfer according to company policies and procedures.

☐ Satisfactory
### Section IV: CETP Performance Evaluation / Employer Record (5.1)

**Completing your NPGA CETP Certification:**

1. Successfully pass the exam.
2. Complete and return the CETP Performance Evaluation / Employee Record to the testing center below *within 12 months of passing the exam.*
3. Complete any necessary prerequisites *within 12 months of passing the exam.*

*Make a copy for your training records and then send to:*

**Industrial Training Services, Inc.**

120 Max Hurt Drive  ●  Murray, KY 42071  ●  PH: 270-753-2150 ext. 2  ●  EMAIL: skills@its-training.com

The information requested below will be used to assist in locating your records in the CETP database. Please make sure to complete all requested information; we thank you in advance for your assistance.

**Employee Information:** (print or type) Test Group Number (if known):

<table>
<thead>
<tr>
<th>Name</th>
<th>Last four digits of SSN (only)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Employer</th>
<th>Daytime Phone#</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>City, State:</th>
<th>Zip Code</th>
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</table>

**Affidavit**

I affirm that I am the person who has performed those items checked on this checklist. I acknowledge that the performance checklists used are solely for the purpose of skills assessment for the CETP certification requirements, and are not intended to replace or modify company operating or safety procedures, and may not be appropriate for use in all circumstances. I acknowledge that I am responsible for recognizing hazards and abnormal conditions in my workplace and must exercise care and good judgment, always using appropriate equipment, procedures and tools for the tasks I perform. The Propane Education and Research Council, the National Propane Gas Association and Industrial Training Services, Inc. assume no liability for my actions, or for my application of the skills assessment performance guides used in this evaluation checklist.

**Employee's Signature** __________________________ Date ______________

**Skills Evaluator Information:** (print or type)

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization/Employer</th>
</tr>
</thead>
</table>

**Affidavit**

I affirm that I am the person who has administered this checklist, and that I have conducted this Employee Skills Assessment with integrity. I also affirm that the above named employee is the person whose performance I evaluated, and that the above named person performed the checked tasks at the indicated level without assistance from me or any other person.

**Skill Evaluator's Signature** __________________________ Date ______________

**Registered Skills Evaluator Number** __________________________
The employee has been evaluated on the following tasks at the following level:
N/A option available *only* when listed in Not Applicable column box(s) □ below

<table>
<thead>
<tr>
<th>Satisfactory</th>
<th>Not Applicable</th>
<th>Section One: Design Dispenser Transfer Systems</th>
</tr>
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<td></td>
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120 Max Hurt Dr.  •  Murray, KY 42071  •  TELEPHONE: 270/753-2150

Email: skills@its-training.com